

FORM PTO-1390  
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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

063511/9043

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

09/889019

INTERNATIONAL APPLICATION NO.  
PCT/GB00/00102INTERNATIONAL FILING DATE  
17 January 2000 (17.01.00)PRIORITY DATE CLAIMED  
15 January 1999 (15.01.99)

## TITLE OF INVENTION

PROCESS FOR PRODUCING A FOODSTUFF

## APPLICANT(S) FOR DO/EO/US

Andrew Joseph Keogh

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

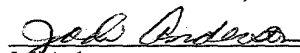
1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☒ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

## Items 11 to 20 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
14. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
15. ☐ A substitute specification.
16. ☐ A change of power of attorney and/or address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
18. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☐ Other items or information:

Express Mail Label No. EL417144557US

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date of my signature and is addressed to Box PCT, Assistant Commissioner for Patents, Washington, D.C. 20231.

  
 John Anderson

7-10-01

Date of Deposit

U.S. APPLICATION NO. (if known) **09/889019**

INTERNATIONAL APPLICATION NO.

ATTORNEY'S DOCKET NUMBER

21. ☐ The following fees are submitted:

## CALCULATIONS PTO USE ONLY

**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):**

Neither international preliminary examination fee (37 CFR 1.482)  
nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO  
and International Search Report not prepared by the EPO or JPO. .... **\$1000.00**

International preliminary examination fee (37 CFR 1.482) not paid to  
USPTO but International Search Report prepared by the EPO or JPO ..... **\$860.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... **\$710.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTO  
but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... **\$690.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTO  
and all claims satisfied provisions of PCT Article 33(1)-(4) ..... **\$100.00**

**ENTER APPROPRIATE BASIC FEE AMOUNT =**

\$ 860.00

Surcharge of **\$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

\$

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$
Total claims	25 - 20 =	5	x \$18.00	\$ 90.00
Independent claims	2 - 3 =	0	x \$80.00	\$ 0
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$270.00	\$

**TOTAL OF ABOVE CALCULATIONS =**

\$ 950.00

☒ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above  
are reduced by 1/2.

+

\$

**SUBTOTAL =**

\$ 950.00

Processing fee of **\$130.00** for furnishing the English translation later than ☐ 20 ☐ 30  
months from the earliest claimed priority date (37 CFR 1.492(f)).

\$

**TOTAL NATIONAL FEE =**

\$ 950.00

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be  
accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **\$40.00** per property +

\$

**TOTAL FEES ENCLOSED =**

\$ 950.00

Amount to be  
refunded:

\$

charged:

\$

- a. ☒ A check in the amount of \$ 950.00 to cover the above fees is enclosed.
- b. ☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
overpayment to Deposit Account No. 13-3080. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card  
information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR  
1.137 (a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

David B. Smith  
Michael Best & Friedrich LLP  
100 East Wisconsin Avenue  
Milwaukee, WI 53202-4108



SIGNATURE

David B. Smith

NAME

27,595

REGISTRATION NUMBER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re

International Application of

Andrew Joseph KEOGH

International Application No.  
PCT/GB00/00102

International Filing Date:  
17 January 2000

PROCESS FOR PRODUCING A FOODSTUFF

PRELIMINARY AMENDMENT

BOX PCT  
Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Please amend the application as follows prior to calculation of the filing fees.

IN THE CLAIMS

Please cancel claims 1-22 and substitute claims 23-47 in the application.

23. A process for producing a set expanded foodstuff, comprising the steps of passing a soft expanded foodstuff composition at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft expanded foodstuff composition in the setting region at a second pressure which is lower than said first pressure.

24. A process as claimed in claim 23, wherein the first temperature is in the range of 70 to 150°C.

25. A process as claimed in claim 23, wherein the first pressure is substantially atmospheric pressure.

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26. A process as claimed in claim 23, wherein the second temperature is in the range of 10 to 50°C.

27. A process as claimed in claim 23, wherein the second pressure is in the range of  $2 \times 10^4$  to  $7 \times 10^4$  Pa.

28. A process as claimed in claim 23, wherein the setting region is substantially maintained at the second temperature and the second pressure.

29. A process as claimed in claim 23, wherein the foodstuff composition is carried through the setting region by a belt conveyor.

30. A process as claimed in claim 23, wherein a chemical expanding agent is included as an ingredient of the composition.

31. A process as claimed in claim 23, wherein expansion is at least partially effected by application of heat and/or by reduction of pressure.

32. A process as claimed in claim 23, wherein the foodstuff composition is a confectionery composition.

33. A process as claimed claim 23, wherein the foodstuff composition is subjected to a forming procedure, in which the foodstuff composition is formed into pieces of a desired shape.

34. A process as claimed in claim 23, wherein the soft expanded foodstuff composition is formed by extrusion.

35. A process as claimed in claim 34, wherein the extruded soft expanded foodstuff composition is cut into pieces and is formed into balls by tumbling, during which procedure the expanded foodstuff composition is heated to the first temperature prior to being passed into the setting region.

36. A process for producing a set expanded foodstuff, comprising the steps of passing a soft foodstuff composition which may be in at least a partially expanded condition and which contains a vaporisable expanding agent, at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft foodstuff composition in the setting region at a second pressure which is lower than said first pressure so as to expand or further expand the foodstuff composition by evaporation of the vaporisable expanding agent.

37. A process as claimed in claim 36, wherein said vaporisable expanding agent is selected from supercritical carbon dioxide or nitrogen, or water.

38. A process as claimed in claim 36, wherein the first temperature is in the range of 70 to 150°C.

39. A process as claimed in claim 36, wherein the first pressure is substantially atmospheric pressure.

40. A process as claimed in claim 36, wherein the second temperature is in the range of 10 to 50°C.

41. A process as claimed in claim 36, wherein the second pressure is in the range of  $2 \times 10^4$  to  $7 \times 10^4$  Pa.

42. A process as claimed in claim 36, wherein the setting region is substantially maintained at the second temperature and the second pressure.

43. A process as claimed in claim 36, wherein the foodstuff composition is carried through the setting region by a belt conveyor.

44. A process as claimed in claim 36, wherein a chemical expanding agent is included as an ingredient of the composition.

45. A process as claimed in claim 36, wherein expansion is at least partially effected by application of heat and/or by reduction of pressure.

46. A process as claimed in claim 36, wherein the foodstuff composition is a confectionery composition.

47. A process as claimed claim 36, wherein the foodstuff composition is subjected to a forming procedure, in which the foodstuff composition is formed into pieces of a desired shape.

REMARKS

The claims have been substituted to remove multiple dependent claims and to conform to U.S. Patent Office practice. Please enter this amendment before calculating the filing fees.

Respectfully submitted,



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Reg. No. 27,595

File No. 063511-9043

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**PROCESS FOR PRODUCING AN EXPANDED FOODSTUFF**

The present invention relates to a process for producing an expanded foodstuff, and more particularly to a process for producing a set expanded foodstuff.

Expanded foodstuffs (i.e. foodstuffs incorporating air and/or other gas; carbon dioxide or nitrogen, for example) are well known. They may be formed by adding gas directly into the foodstuff composition, for example by mechanical beating and optionally subjecting the foodstuff to a reduced pressure or by injecting gas under pressure and subsequently releasing the pressure (e.g. extrusion). Alternatively (or in combination with the above), a chemical agent (e.g. sodium bicarbonate) may be incorporated into the foodstuff composition, which agent results in the formation of gas in the foodstuff composition.

A particular difficulty in the formation of expanded foodstuffs is obtaining a consistent product with the required degree of expansion necessary for a desired texture and, where the foodstuff is intended for human consumption, mouthfeel. Over-expansion may result in the foodstuff having a hollow interior. Conversely, care must be taken not to allow the expanded foodstuff to collapse before it has set properly. This is a particular problem if expansion is effected at an elevated temperature, in which case the foodstuff must be solidified under carefully controlled conditions. For example, if expansion is effected under vacuum at an elevated temperature, the vacuum must generally be maintained until the moisture content of the foodstuff has reduced sufficiently for it to set. In another method, the expanded foodstuff

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is stabilised by reducing its moisture content by conditioning at elevated temperature (approximately 100°C) for one hour or more before being allowed to cool. Such processes may be time consuming and costly.

It is an object of the present invention to provide an improved process for setting expanded foodstuffs which obviates or mitigates the above-mentioned problems.

According to a first aspect of the present invention, there is provided a process for producing a expanded foodstuff, comprising the steps of passing a soft expanded foodstuff composition at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft expanded foodstuff composition in the setting region at a second pressure which is lower than said first pressure.

According to a second aspect of the present invention, there is provided a process for producing a set expanded foodstuff, comprising the steps of passing a soft foodstuff composition which may be in at least a partially expanded condition and which contains a vaporisable expanding agent, at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft foodstuff composition in the setting region at a second pressure which is lower than said first pressure so as to expand or further expand the foodstuff composition by evaporation of the vaporisable expanding agent.



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As used herein, "soft" in relation to the foodstuff composition relates to such foodstuff composition which may have been expanded but which is in a plastic state and is therefore capable of expansion (or further expansion) or contraction.

Preferably, the first temperature is typically in the range 70 to 150°C. The first pressure is preferably substantially atmospheric pressure.

The second temperature is preferably in the range of 10 to 50 °C but is typically ambient temperature. The second pressure is preferably in the range of  $2 \times 10^4$  to  $7 \times 10^4$  Pa, more preferably  $3.3 \times 10^4$  to  $5 \times 10^4$  Pa.

Preferably, the setting region is substantially maintained at the second temperature and the second pressure, thereby allowing the process to be continuous. More preferably, the setting region is provided with an inlet and an outlet, and is arranged such that the soft foodstuff composition enters the setting region via the inlet, and set foodstuff composition emerges from the outlet.

In one embodiment, the foodstuff composition is carried through the setting region by a belt conveyor. The residence time of the foodstuff composition in the setting region may be controlled by adjusting the speed of the conveyor. The time required to set the soft foodstuff composition can be ten minutes or less and can be as short as about three minutes.

Initial expansion (i.e. expansion prior to passing into the setting region) may be at least partially effected by application of heat and/or by reduction of

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pressure (e.g. application of partial vacuum or extrusion through a die from a relatively high pressure region into a relatively low pressure region).

In general, expansion of a foodstuff composition requires an expanding agent to be incorporated into the composition. Suitable expanding agents include chemical expanding agents such as sodium or ammonium bicarbonate and gaseous or vaporisable expanding agent, such as gaseous or supercritical carbon dioxide or nitrogen, compressed air or water.

In the process according to the first aspect of the invention, one or more chemical and/or gaseous or vaporisable expanding agents may be included as an ingredient of the foodstuff composition.

In the process according to the second aspect of the invention, one or more chemical and/or gaseous expanding agents may be included as an ingredient of the foodstuff composition in addition to the vaporisable expanding agent which is preferably selected from supercritical carbon dioxide or nitrogen, or water.

It will be understood that evaporation of the vaporisable expanding agent, when present, will assist in cooling and setting of the foodstuff composition.

The foodstuff composition may contain any ingredient or combination of ingredients (in addition to any expanding agent) which when mixed together under the described conditions will form a mass capable of expansion in its plastic state and a solidification or setting which retains the physical characteristics of that expanded state. Preferably the foodstuff composition is

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a confectionery composition and will generally contain (in addition to any expanding agent) one or more ingredients selected from cocoa solids, sugar, other carbohydrate (e.g. mono-, di-, oligo- and poly-saccharides) malted milk, malt extract, skim milk powder, whole milk powder, maltodextrin, vegetable oil or fat, starch, binding agents such as gluten, casein, pectin, gum and gelatin, flavouring agents and colouring agents.

The foodstuff composition may be subjected to a forming procedure, in which the foodstuff composition is formed into pieces of a desired shape, for example bars or "balls" (i.e. pieces of a near spherical shape). Such forming procedure may involve deposition of the foodstuff composition into moulds prior to expansion. Alternatively, the forming procedure may be effected on the expanded but soft foodstuff composition (for example cutting an expanded composition into pieces following extrusion and optionally tumbling the pieces to form balls).

In a preferred embodiment of said first aspect, the soft expanded foodstuff composition is formed by extrusion, preferably using an extrusion cooker.

In a highly preferred embodiment of said first aspect, the extruded soft expanded foodstuff composition is cut into pieces and is formed into balls by tumbling, during which process the expanded foodstuff composition is heated to the first temperature prior to being passed into the setting region.

Subsequent to setting, the set expanded foodstuff pieces may be sent for packaging or be subjected to a further procedure, for example enrobing with, for example, a chocolate coating composition.

The present invention will now be described in more detail in the following Examples.

### Example 1

Recipe (kg by weight)

Sugar	57.9
Dried corn syrup	36.1

A batch was weighed according to the above recipe and mixed in a ribbon blender. The resultant composition was added to section 1 of the feed zone of an 11-section Wenger TX52 twin co-rotating screw extrusion cooker at the rate of 21 kg/hr. Section 6 of the extruder was furnished with a vent which, in this example, was open to the atmosphere. The extruder shaft speed was 210 rpm and extruder motor load was 48%. The extruder temperature in sections 1 to 3 was maintained between 30 and 40°C, sections 4 to 6 between 140 and 150°C and sections 6 to 11 between 60 and 65°C. A freshly prepared slurry of sodium bicarbonate (6 kg) in 42DE corn syrup (4 kg) was pumped into the open extruder vent at a rate of 2.3 kg/hr. The mass at 1030 kPa from section 11 was extruded through a circular die to form a continuous rope.

The rope emerging from the die (into a region at atmospheric pressure) was passed under a starch feeder to be coated with starch before being cut by a spring-loaded knife producing small cylindrical pieces. These were transferred to a vibrating conveyor to form approximately spherical pieces with a temperature of about 120°C and a uniform expanded structure. The

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pieces were equilibrated to 70°C so as to be in the "soft" state and then passed from the vibrating conveyor to a vacuum oven (temperature 20°C and pressure  $6 \times 10^4$  Pa) so as to cool and set the pieces. On removal from the oven after only 3 minutes retention time, the pieces were crisp and had retained their uniform expanded structure.

### Example 2

Recipe (kg by weight)

Granulated sugar	37.9
Dried glucose syrup solids 42DE	25.2
Skim milk powder	29.0
Low fat (11 %) cocoa powder	7.9

A batch was weighed according to the above recipe and mixed in a ribbon blender. The resultant composition was added to section 1 of the feed zone of an 11-section Wenger TX52 twin co-rotating screw extrusion cooker at the rate of 50 kg/hr. Section 6 of the extruder was furnished with a vent which, in this example, was open to the atmosphere. The extruder shaft speed was 150 rpm and extruder motor load was 89%. The extruder temperature in sections 1 to 3 was maintained between 30 and 40°C, sections 4 to 6 at 55°C and sections 6 to 11 at 60°C. A freshly prepared slurry of sodium bicarbonate (6 kg) in 42DE corn syrup (4 kg) was pumped into the open extruder vent at a rate of 2.5 kg/hr. The mass at 2760 kPa from section 11 was extruded through a circular die to form a continuous rope.

The rope emerging from the die (into a region at atmospheric pressure) was passed under a starch feeder to be coated with starch before being cut by a

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spring-loaded knife producing small cylindrical pieces. These were transferred to a vibrating conveyor to form approximately spherical pieces with a temperature of about 105°C and a uniform expanded structure. The pieces were equilibrated to 90°C so as to be in the "soft" state and then passed from the vibrating conveyor to a vacuum oven (temperature 20°C and pressure  $5 \times 10^4$  Pa) so as to cool and set the pieces. On removal from the oven after only 3 minutes retention time, the pieces were crisp and had retained their uniform expanded structure.

### Example 3

Recipe (kg by weight)

Sugar	46
Dried glucose syrup	46
Milk powder	0 5
Water	0 3

A batch was weighed according to the above recipe and mixed in a z-blade mixer to produce a heavy dough. The mixing process caused the temperature of the dough to rise to 75 - 80°C. This dough was rolled onto cool tables and cut into strips which were fed through chilled forming rolls to produce shapes connected by a thin web. The formed web was cooled until it became brittle and the formed shapes were then separated into discrete pieces by tumbling. The pieces so formed were equilibrated in a rotary hot-air applicator at a temperature of between 70 and 80°C and subsequently transferred to a continuous vacuum chamber maintained at a temperature of between 20 and 40°C and at a pressure of  $5 \times 10^4$  Pa.

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Under these conditions moisture in the pieces evaporated causing the pieces to expand. The evaporative cooling effect caused the pieces to cool below their glass transition temperature (about 70°C), and they were removed after approximately 3 minutes. The pieces, now having a moisture content of less than 1 % were crisp and retained their uniform expanded structure.

### **Comparative Example 1**

Example 1 was repeated, but after forming into balls, the pieces were cooled to 20°C at atmospheric pressure. The resultant pieces were more dense than those of Example 1 due to some loss of expansion, and the uniform expanded structure was lost. The pieces had a shrivelled appearance.

### **Comparative Example 2**

Example 1 was repeated, but after forming into balls, the pieces were dried in a multi-pass drier at 101 °C at atmospheric pressure and then allowed to cool to ambient temperature. A drying time of at least 35 minutes was required before the uniform expanded structure was maintained after cooling.

## CLAIMS

1. A process for producing a set expanded foodstuff, comprising the steps of passing a soft expanded foodstuff composition at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft expanded foodstuff composition in the setting region at a second pressure which is lower than said first pressure.
2. A process for producing a set expanded foodstuff, comprising the steps of passing a soft foodstuff composition which may be in at least a partially expanded condition and which contains a vaporisable expanding agent, at a first temperature and a first pressure into a setting region at a second temperature, said second temperature being lower than said first temperature; and cooling and setting said soft foodstuff composition in the setting region at a second pressure which is lower than said first pressure so as to expand or further expand the foodstuff composition by evaporation of the vaporisable expanding agent.
3. A process as claimed in claim 2, wherein said vaporisable expanding agent is selected from supercritical carbon dioxide or nitrogen, or water.
4. A process as claimed in any preceding claim, wherein the first temperature is in the range of 70 to 150°C.



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5. A process as claimed in any preceding claim, wherein the first pressure is substantially atmospheric pressure.
6. A process as claimed in any preceding claim, wherein the second temperature is in the range of 10 to 50 °C.
7. A process as claimed in any preceding claim, wherein the second pressure is in the range of  $2 \times 10^4$  to  $7 \times 10^4$  Pa.
8. A process as claimed in claim 7, wherein the second pressure is in the range of  $3.3 \times 10^4$  to  $5 \times 10^4$  Pa.
9. A process as claimed in any preceding claim, wherein the setting region is substantially maintained at the second temperature and the second pressure.
10. A process as claimed in claim 9, wherein the setting region is provided with an inlet and an outlet, and is arranged such that the soft foodstuff composition enters the setting region via the inlet, and set expanded foodstuff emerges from the outlet.
11. A process as claimed in any preceding claim, wherein the foodstuff composition is carried through the setting region by a belt conveyor.
12. A process as claimed in claim 11, wherein the residence time of the foodstuff composition in the setting region is controlled by adjusting the speed of the conveyor.

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13. A process as claimed in any preceding claim, wherein a chemical expanding agent is included as an ingredient of the composition.

14. A process as claimed in claim 1 or any one of claims 3 to 13 when appended to claim 1, wherein a gaseous or vaporisable expanding agent is incorporated into the composition.

15. A process as claimed in any preceding claim, wherein expansion is at least partially effected by application of heat and/or by reduction of pressure.

16. A process as claimed in any preceding claim, wherein the foodstuff composition is a confectionery composition.

17. A process as claimed in claim 16, wherein the confectionery composition contains one or more ingredients selected from cocoa solids, sugar, other carbohydrate, malted milk, malt extract, skim milk powder, whole milk powder, maltodextrin, vegetable oil or fat, starch, binding agents such as gluten, casein, pectin, gum and gelatin, flavouring agents and colouring agents.

18. A process as claimed in any preceding claim, wherein the foodstuff composition is subjected to a forming procedure, in which the foodstuff composition is formed into pieces of a desired shape.

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19. A process as claimed as in claim 18, wherein said forming procedure involves deposition of the foodstuff composition into moulds prior to expansion.
20. A process as claimed in claim 18, wherein the forming procedure is effected on the expanded but soft foodstuff composition.
21. A process as claimed in claim 1 or any one of claims 3 to 20 when appended to claim 1, wherein the soft expanded foodstuff composition is formed by extrusion.
22. A process as claimed in claim 21, wherein the extruded soft expanded foodstuff composition is cut into pieces and is formed into balls by tumbling, during which procedure the expanded foodstuff composition is heated to the first temperature prior to being passed into the setting region.

Declaration and Power of Attorney For Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled PROCESS FOR PRODUCING A FOODSTUFF (Attorney Docket No. 063511/9043), the specification of which was filed with my authority, on July 10, 2001, as Application Serial No. 09/889,019 (which is the U.S. National Phase of PCT/GB00/00102, filed January 17, 2000).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims referred to above.

I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

As a named inventor, I hereby appoint the following registered practitioners to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Customer Number

23409



23409

PATENT TRADEMARK OFFICE

DIRECT ALL COMMUNICATIONS IN OR PERTAINING TO THIS APPLICATION TO:

Customer Number

23409



23409

PATENT TRADEMARK OFFICE

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of the foreign application for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

9900772.6	Prior Foreign Application	
(Number)	Great Britain	15 January 1999
	(Country)	(Day/Month/Year Filed)

The undersigned to this Declaration and Power of Attorney hereby authorize the U.S. attorneys named herein to accept and follow instructions from Marks & Clerk Birmingham, United Kingdom as to any actions to be taken in the U.S. Patent and Trademark Office regarding this application without direct communication between the U.S. attorneys and the undersigned. In the event of a change in the person(s) from whom instructions may be taken, the undersigned will so notify the U.S. attorneys.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint inventor: Andrew Joseph Keogh

Inventor's signature

Date:

Residence:

Citizenship:

Post Office Address:

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Ringwood,  
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